$\overline{\mathbf{CV}}$ 

Jon Lundberg MD, PhD

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Present position:

2004- Professor, Department of Physiology and Pharmacology, Head of Section for Pharmacological Nitric Oxide Research Karolinska Institutet, Stockholm, Sweden.

## **Academic Education:**

1993 - Medical Degree (MD) from Karolinska Institutet 1994-1996 - Graduate student KI, PhD May 1996 1999 - Associate Professor, KI 2004 - Professor of Pharmacology, KI

#### **Publications:**

1994-May 2009 Published 125 articles and 6 book chapters. 82/125 papers (=65 %) as first or last author.

#### Citations:

4000 citations between 1994-2009

#### Referee:

for Nature, Nature Med, PNAS, Lancet, NEJM, Blood, Circulation, Circ Res and more

#### Supervision:

Supervised 10 graduated PhD students (main supervisor 6). Currently supervising 4 PhD students (main supervisor 2) Two Post-docs 2005-present Two guest professors 2004-2006

# Lecturer/chairman:

Invited >40 occasions to speak and chair at International conferences including plenary speech at European Respiratory Society meeting in Budapest 1999, plenary speech and chairman at NO Biology and Chemistry meetings 1999, 2002, 2006, 2008, invited lecturer Nobel Symposium KI 2008 "Man and her microbes". Plenary speaker at Gordon Conferences on NO (2009, 2007, 2005) and Oxygen radicals (2008). Plenary speaker American Academy of Allergy and Asthma (AAAA), Orlando FL 1999.

# Organizer meetings:

In March 2009 Elected new chairman for Gordon Research Conference (GRC) on the Chemistry and Biology of Nitric Oxide, to be held in 2010.

Organized one International Meeting on the Physiology, Pathophysiology and Therapeutics of Nitrite (2009, Nobel Forum, KI)

Organized one Nobel Minisymposium on Nitrite and Nitrate in 2007.

Co-organized the conference: The Chemistry and Biology of NO, Stockholm 2000 and Bregenz Austria 2008.

Member of Organizing committee at two International Meetings on the Physiology, Pathophysiology and Therapeutics of Nitrite (2005, 2007, NIH)

# **Expert committee:**

Member of American Thoracic Societies (ATS) and European Respiratory Society (ERS) expert committees on exhaled nitric oxide. Co-author of ATS guidelines for exhaled NO published in 1999 and 2005.

Co-author on ATS official statement on how to interpret exhaled NO in clinical practice, to be published in late 2009.

Member of consensus expert panel, National Institutes of Allergy and Infectious Disease, USA 1997: Topic - Sinusitis: bench to bedside. Current findings, future directions.

# Editorship:

Advisory Editor Arch of Pharmacology 1996-2002, Associate Editor J Breath Research 2006-present. Guest Editor for special issue of NO:Biol Chem to be published in late 2009.

# Popular press:

Our Nature Chem Biol paper from 2008 was highlighted in Nature "News and Views" July 2008

Interviewed by Discovery Magazine, published Oct 1996 "NO in the sinuses" Interviewed by Scientific American, published Nov 2007 "A bad rap for nitrate" Interviewed by The Scientist, published Oct 2008 "A mammalian nitrate reductase"

## Awards and recognition:

Nominated for Gustafsson Prize in 2009 - Selected in Chemistry category by the President and the Dean of Research at KI. The Gustafsson prizes are considered the most prestigious national scientific prizes for younger (<45 years) Swedish scientists. Decision due in March 2010.

Recipient of the Iron Bolt Award at the Oxygen Radical Gordon Research Conference in Ventura, CA, Feb 2008.

Our paper "The Nitrate-Nitrite-NO Pathway" published 2008 in Nature Rev Drug Discov was selected "New Hot paper" by Thomson Scientific in May 2009. This means it is currently among the 0.1 % most cited papers. An interview was published on Thomson Sci home page on May 1.

Lundbergs project grant application "The Nitrate-Nitrite-NO Pathway" to the Swedish Research Council (VR) was ranked highest (WPV points) among all researchers in his subject area (heart and blood vessels) in 2005 and 2008.

#### Patents:

Named inventor on 15 granted patents and 8 pending applications.

# Entrepreneurship:

Co-Founder of Aerocrine AB, a biotech company that capitalizes on our original findings of NO as a marker of inflammation. Lundberg was Vice President at Aerocrine AB during start-up phase in 1998. Aerocrine is one of the extremely few KI-based research companies that has made it to the regular Stockholm Exchange Market (June 2007). The company value today is around 160 million USD.

# **External grants:**

Current Funding: 2009-2012 (Lundberg PI)

Research Council (VR)	2009-2011	1,300,000/year (SEK)
Heart-Lung Foundation	2009-2011	400,000/year
EU 6th FP	2005-09	900,000/year
EU 7th FP	2009-2012	1,000,000/year
Söderbergska	2009	1,225,000
Vinnova	2009-2011	200,000/year
Other (KI etc)	2009	150,000

# Total external funding: 2004-2009

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2004 - 1,350,000 (Research council, Heart-Lung Foundation)
2005 - 1,980,000 (Research council, EU, Heart-Lung Foundation)
2006 - 1,960,000 (Research council, EU, Heart-Lung Foundation)
2007 - 2,820,000 (Research council, EU, Söderbergska, Heart-Lung Foundation)
2008 - 3,446,000 (Research council, EU, Söderbergska, Heart-Lung Foundation)
2009 - 5,175,000 (see above)
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## Ten selected publications:

7/10 published 2004 or later 9/10 as first or last author

1. Jansson EA, Huang L, Malkey R, Govoni M, Nihlén C, Olsson A, Stensdotter M, Peterssen J, Holm L, Weitzberg E, Lundberg JO. A functional mammalina nitrate reductase that regulates nitrite and nitric oxide homeostasis. **Nature Chem Biol.** 2008 Jul;4(7):411-17.

- 2. Lundberg JO, Weitzberg, Gladwin. The Nitrate-Nitrite-Nitric Oxide Pathway in physiology and Therapeutics. Nature Rev Drug Discov 2008 Feb;7(2):156-67.
- 3. Larsen F, Ekblom B, Sahlin K, Lundberg JO Weitzberg E. Effectrs of dietary nitrate on blood pressure in healthy volunteers. N Engl J Med. 2006 28;355:2792-3.
- 4. Gladwin MT, Schechter AN, Kim-Shapiro DB, Patel RP, Hogg N, Shiva S, Cannon RO 3rd, Kelm M, Wink DA, Espey MG, Oldfield EH, Pluta RM, Freeman BA, Lancaster JR Jr, Feelisch M, Lundberg JO. The emerging biology of the nitrite anion. Nature Chem Biol. 2005 Nov;1(6):308-14.
- 5. Lundberg JO, Govoni M. Inorganic nitrate is a possible source for systemic generation of nitric oxide. Free Radic Biol Med. 2004 Aug 1;37(3):395-400.
- 6. Lundberg JO, Weitzberg E, Cole JA, Benjamin N. Nitrate, bacteria and human health. Nature Rev Microbiol. 2004 Jul;2(7):593-602.
- 7. Bjorne H, Petersson J, Phillipson M, Weitzberg E, Holm L, Lundberg JO. Nitrite in saliva increases gastric mucosal blood flow and mucus thickness. J Clin Invest. 2004 Jan;113(1):106-14.
- 8. Lundberg JO, Lundberg JM, Alving K, Weitzberg E. Nitric oxide and inflammation: the answer is blowing in the wind. Nature Med. 1997 Jan;3(1):30-1.
- 9. Lundberg JO, Farkas-Szallasi T, Weitzberg E, et al. High nitric oxide production in human paranasal sinuses. Nature Med. 1995 Apr;1(4):370-3.
- 10. Lundberg JO, Hellstrom PM, Lundberg JM, Alving K. Greatly increased luminal nitric oxide in ulcerative colitis. Lancet. 1994 Dec 17;344(8938):1673-4